

REMARKS

Claims 1-29 remain in this application. Claims 1-6, 17, 18 and 22-29 are rejected. Claims 7-16, 19-21, and 26-28 are objected to. Claims 1-23 and 25-29 are amended herein to clarify the invention, to broaden language as deemed appropriate and to address matters of form unrelated to substantive patentability issues. For example, recitation of "means" in the claims is now removed to broaden interpretation beyond equivalents of specification structure. Other formal matters are attended to that were not addressed by the Examiner and accordingly are considered unrelated to substantive patentability issues. For the convenience of the Examiner, APPENDIX I is provided herewith having a complete set of pending claims with all amendments effected therein.

SPECIFICATION OBJECTION

The title is objected to in the Office Action as being nondescriptive. The title is amended to read "IMAGE PROCESSING DEVICE FOR CORRECTING GRADATION OF COLOR IMAGE" to overcome this objection. It is respectfully submitted that the amended title is sufficiently descriptive. Applicant respectfully requests that the objection to the title be withdrawn.

DRAWING OBJECTIONS

The Examiner objects to the drawings under 37 C.F.R. § 1.84(p)(5) for having reference designator not referred to in the specification. It is stated that Fig. 1 has reference designators 43, 24 and 425b is not referred to in the body of the specification. The figure is amended to remove the designators. Also, "424g" is now corrected to read "424y." Fig 2 is stated to have mislabeled items. The specification is now amended on page 11 to be consistent with the figure. Reconsideration of the objection to the drawings and withdrawal thereof are earnestly solicited.

§ 112, SECOND PARAGRAPH REJECTIONS

Claims 26-29 are rejected as indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter of the invention. The Office Action cites various informalities in the claim language including awkward wording and lack of antecedent bases. The Office Action further indicates that claims 26-29 contain allowable subject matter and would be allowed if amended to overcome the §112, second paragraph rejection.

Claims 26-29 are amended to clarify the claimed invention and to place the claims into conformance with U.S. claiming practice. The phrase "a common

gradation lowering rate" means the rate r obtained by the formula (18) shown on page 42, and further discussion is provided in the detailed description of the rate from line 5 of page 40 to line 3 of page 43. The amendments were made with consideration of the various informalities noted in the Office Action. It is respectfully submitted that the amendments remove or correct the informalities noted in the Office Action. Therefore, and in light of the Office Action statement indicating that the claims contain allowable subject matter, reconsideration of the rejection of claims 26-29 and their allowance are earnestly requested.

CLAIM REJECTIONS UNDER §102 AND §103

Claims 1-3 and 6 are rejected as anticipated by the Hamburg reference. Claims 4 and 5 are rejected as obvious over the Hamburg reference in view of the Knox reference under 35 U.S.C. §103(a). Claims 17, 18 and 22-27 are rejected as obvious over the Hamburg reference in view of the Matsuda reference under 35 U.S.C. §103(a). The applicant herein respectfully traverses these rejections.

"Under 35 U.S.C. §102, anticipation requires that each and every element of the claimed invention be disclosed in the prior art reference. ... In addition, the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public." *Akzo N.V. v. U.S. International Trade Commission*,

1 USPQ 2d 1241, 1245 (Fed. Cir. 1986), *cert. denied*, 482 U.S. 909 (1987). "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP §706.02(j) "Contents of a 35 U.S.C. §103 Rejection". It is respectfully submitted that the cited references fail to disclose at least the following features and elements of the present invention.

The claim 1 is amended to clarify the subject matter. One of the significant features of the invention is determination of whether all the color component gradation data for each pixel satisfy predetermined conditions for an unwanted pixel. With reference to the embodiment of the present application, gradation data are obtained for three color components, e.g. cyan, magenta and yellow. The condition for the determination of unwanted pixel is provided for each of the color components. Then, every gradation data for each pixel, e.g. the cyan, magenta and yellow

gradation data, are respectively judged whether they satisfy the respective conditions. With this procedure, only the pixels for which all the gradation data satisfy the condition are identified as unwanted pixels of which gradation data should be converted in the next step.

The above feature is not shown nor suggested in any of the cited references. Hamburg (USP 6,434,269) shows a method and apparatus for erasing a feature from a digital image by scanning the image by a brush to identify tip portions and determining an erased portion by matching a color of the portion with a predetermined color. For the comparison of the color, Hamburg employs a color match value for each pixel which is to be compared with a threshold. However, so far as inferred from the disclosure of Hamburg, the color match value is a single value but does not represent every gradation of a plurality of color components. Hamburg fails to disclose the above mentioned feature of claim 1 of the present invention, inter alia, the determination of unwanted pixels with reference to all the gradation data of each pixel in regard to color components.

Knox (USP 6,102,283) shows a show-through correction for two-sided multi-page documents. However, the manner of show-through correction is quite different from the present invention. In addition, Knox fails to show detection and conversion of unwanted pixels for each of color components.

Matsuda (USP 6,285,470) discloses a show-through correction for an image reading apparatus which reads an image of a document from above the book.

However, the manner of show-through correction is quite different from the present invention. In addition, Matsuda fails to show detection and conversion of unwanted pixels for each of color components.

With regard to claims 2 and 3 of the present application, the Examiner's attention is directed to the feature that the determination of unnecessary image is made for each color component with regard to gradation, while Hamburg determines erased portion by color matching. Hamburg is silent as to the color components and gradation of image. Hamburg is also silent as to the gradation ranged as claimed in claim 6. The gradation range is such as L1 and L2 shown in Figures 10 and 11, and small box W1 shown in Figure 13.

With regard to claims 4-5, the secondary reference Knox fails to show the determination of the gradation of an undertone portion and/or backside image portion.


Thus, it is respectfully submitted that the rejected claims are not anticipated by nor rendered obvious in view of the cited references for the reasons stated above. Reconsideration of the rejections of claims and their allowance are respectfully requested.

EXTENSION REQUEST

Applicant respectfully requests a one month extension of time for responding to the Office Action. Please charge the fee of \$110.00 for the extension of time to Deposit Account No. 10-1250.

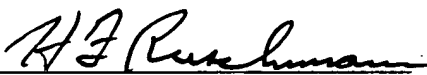
In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited. Please charge any deficiency or credit any overpayment to Deposit Account No. 10-1250.

Respectfully submitted,
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enc: Replacement drawing sheet of Fig. 1.